Fig.1

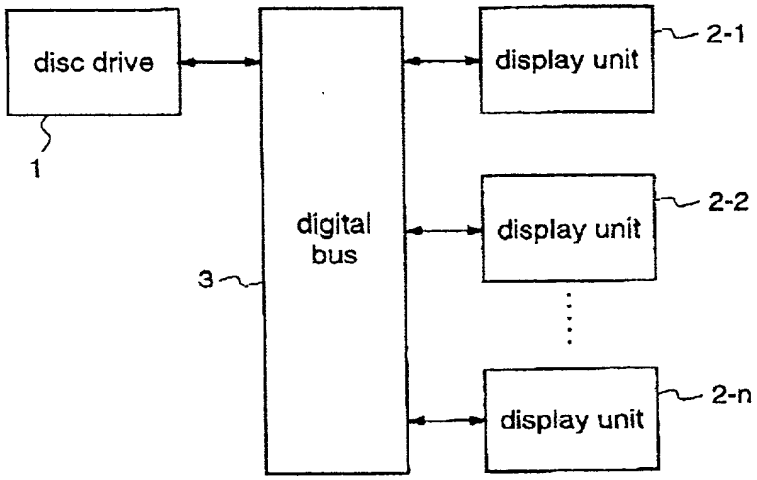

disc drive
1
digital bus
3
display unit
2-1
display unit
2-2
display unit
2-n

Fig.2

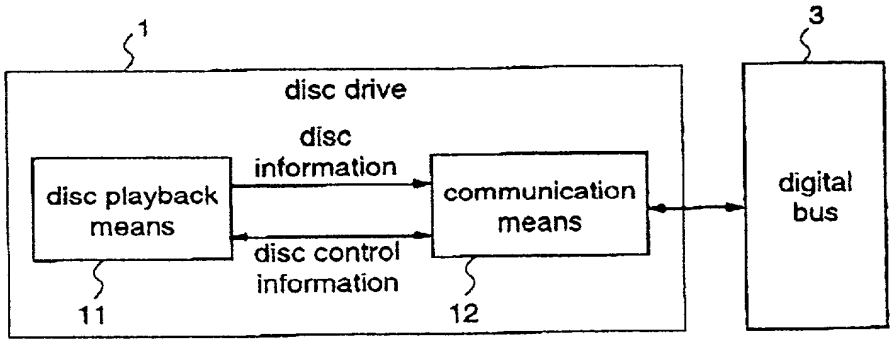

1
disc drive
disc information
disc playback means
disc control information
communication means
11
12
3
digital bus

Fig.3

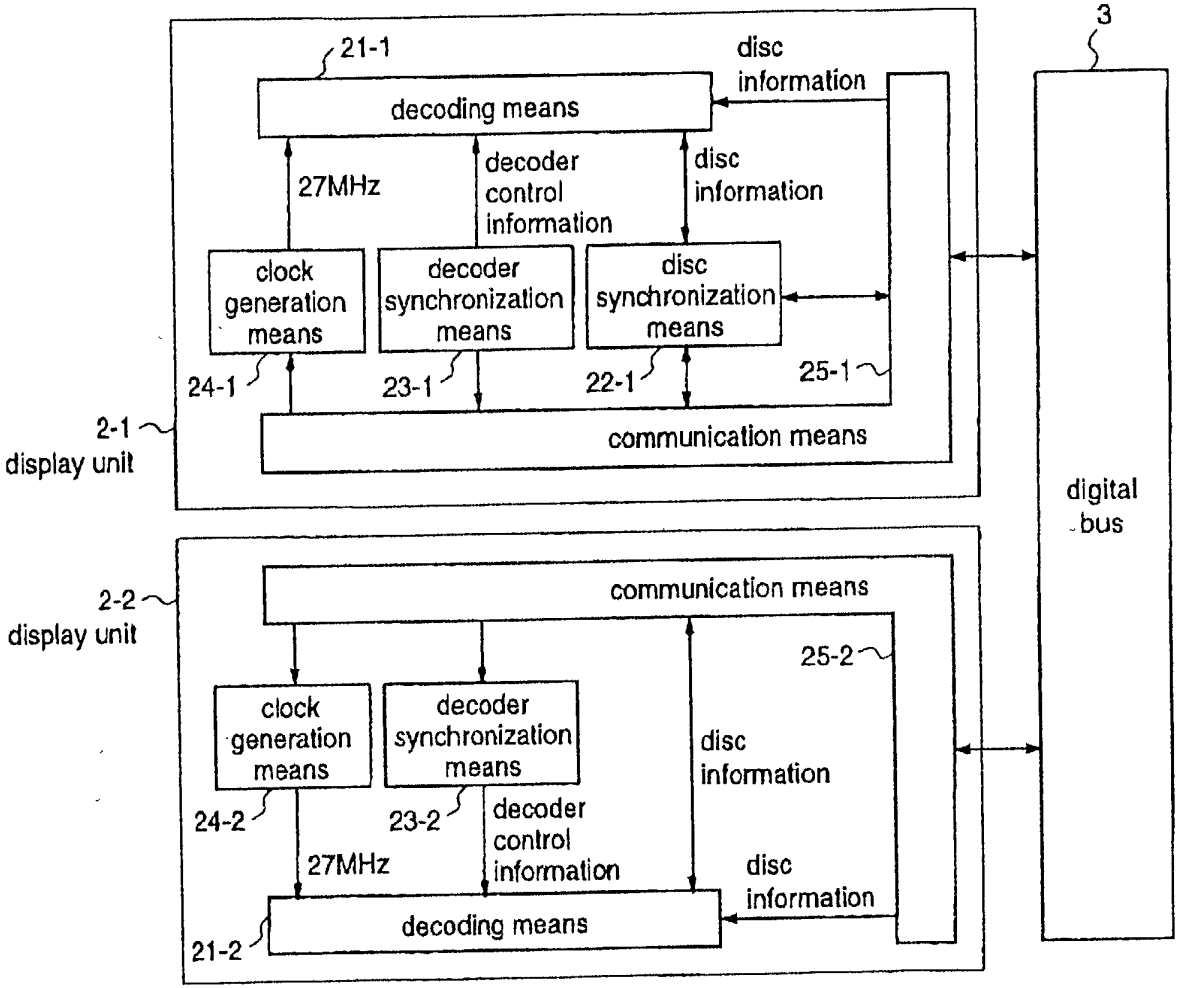

3
21-1
disc information
decoding means
27MHz
decoder control information
disc information
clock generation means
decoder synchronization means
disc synchronization means
24-1
23-1
22-1
25-1
2-1 display unit
communication means
digital bus
2-2 display unit
communication means
25-2
clock generation means
decoder synchronization means
disc information
24-2
23-2
decoder control information
27MHz
disc information
21-2
decoding means

Fig.4 (a)

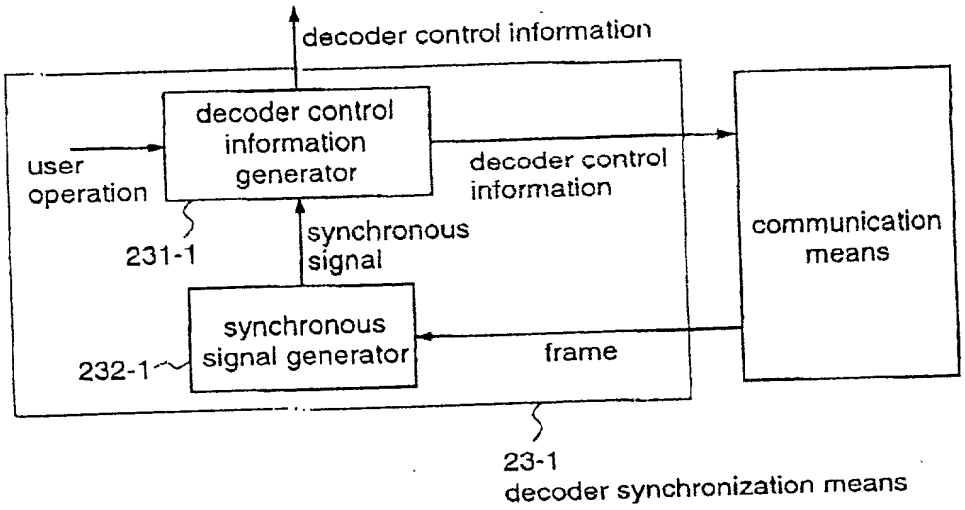

decoder control information
decoder control information generator
user operation
231-1
synchronous signal
decoder control information
communication means
synchronous signal generator
232-1
frame
23-1
decoder synchronization means

Fig.4 (b)

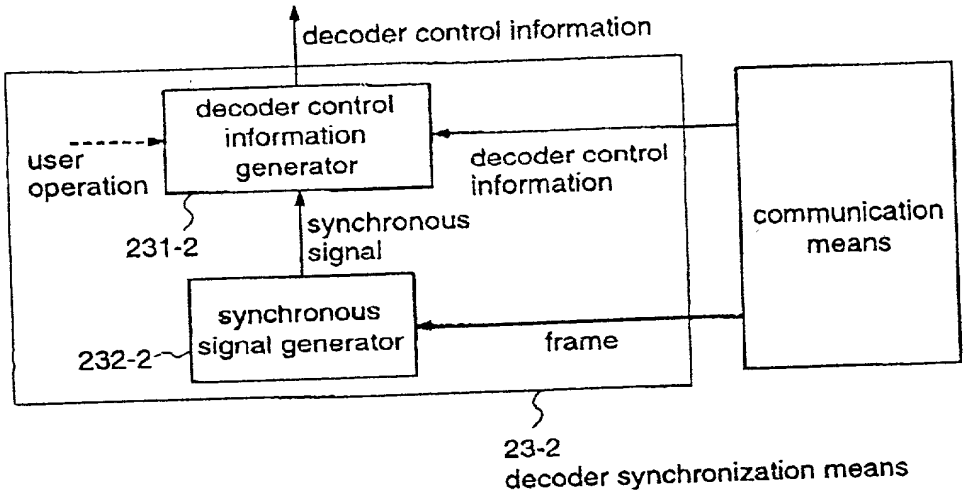

decoder control information
decoder control information generator
user operation
231-2
synchronous signal
decoder control information
communication means
synchronous signal generator
232-2
frame
23-2
decoder synchronization means

Fig.5

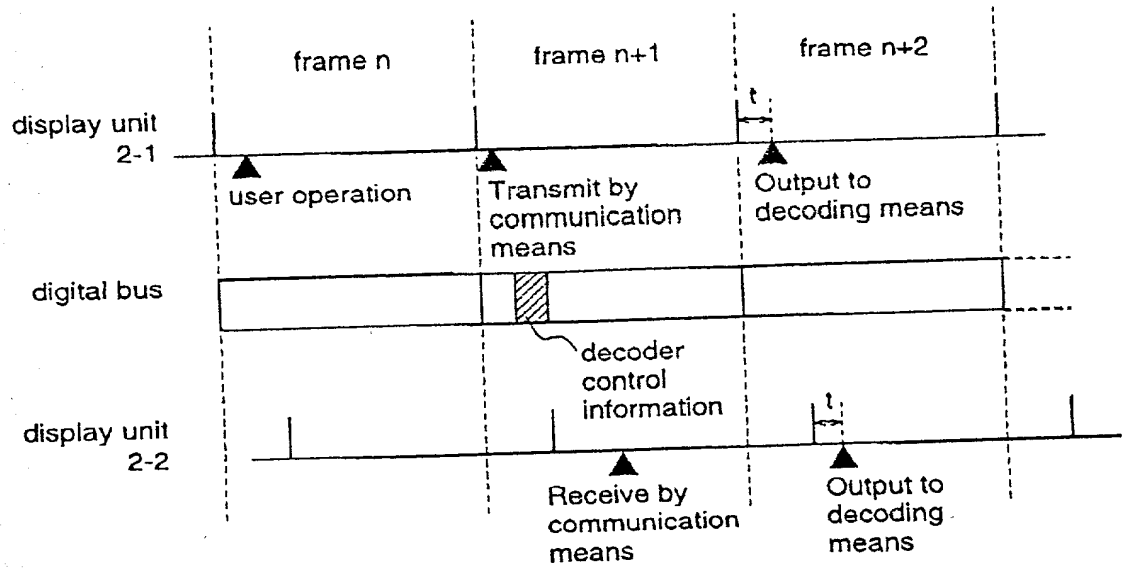

frame n
frame n+1
frame n+2
t
display unit 2-1
user operation
Transmit by communication means
Output to decoding means
digital bus
decoder control information
t
display unit 2-2
Receive by communication means
Output to decoding means

Fig.6

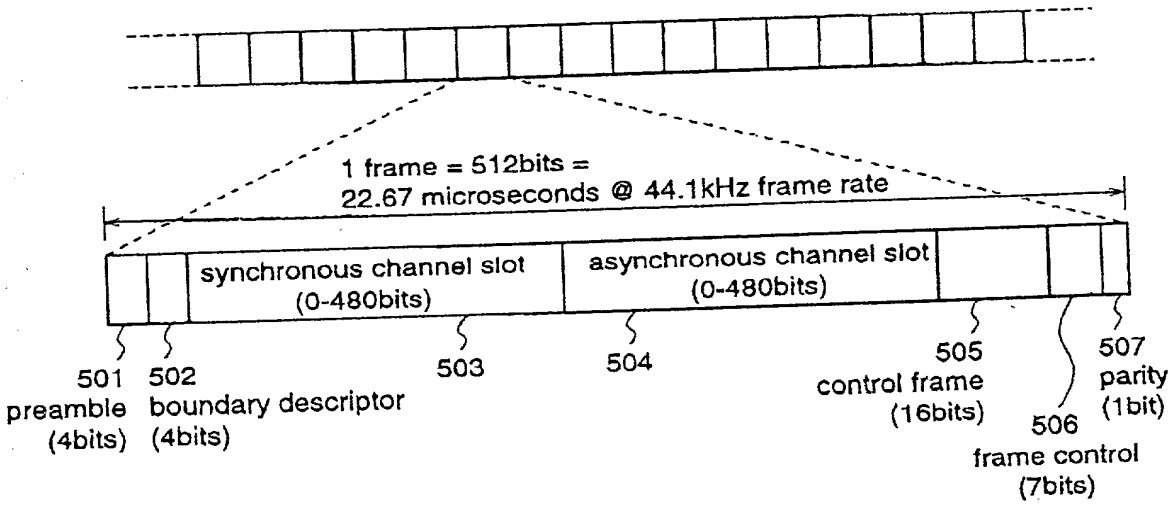

1 frame = 512bits =
22.67 microseconds @ 44.1kHz frame rate
synchronous channel slot (0-480bits)
asynchronous channel slot (0-480bits)
501 preamble (4bits)
502 boundary descriptor (4bits)
503
504
505 control frame (16bits)
506 frame control (7bits)
507 parity (1bit)

Fig.7

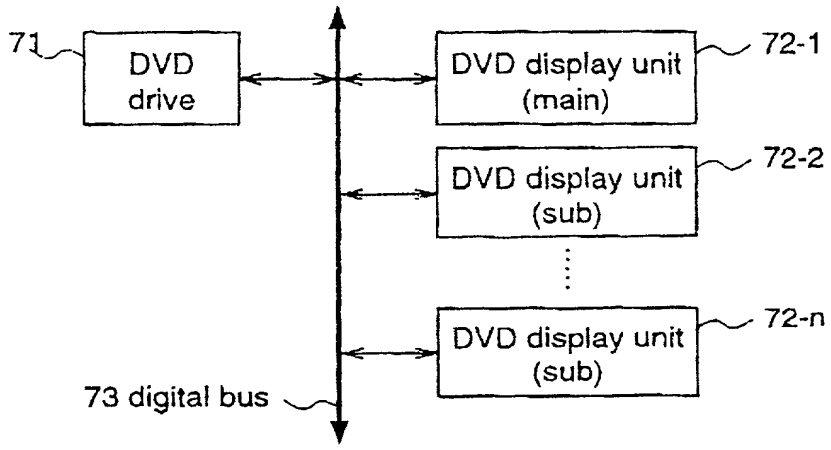

71
DVD drive
DVD display unit (main)
72-1
DVD display unit (sub)
72-2
DVD display unit (sub)
72-n
73 digital bus

Fig.8

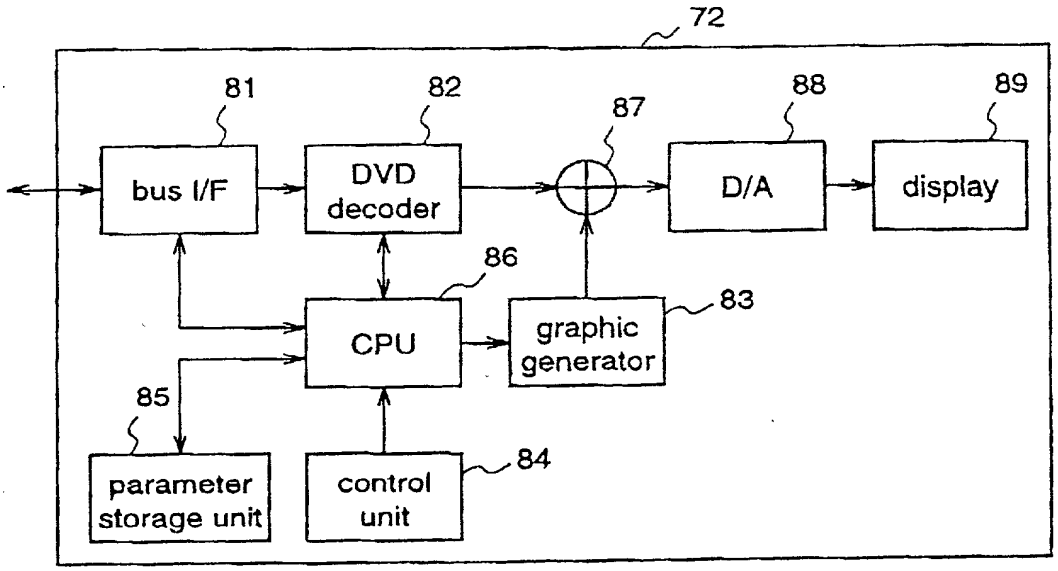

72
81
82
87
88
89
bus I/F
DVD decoder
D/A
display
86
CPU
graphic generator
83
85
parameter storage unit
control unit
84

Fig.9

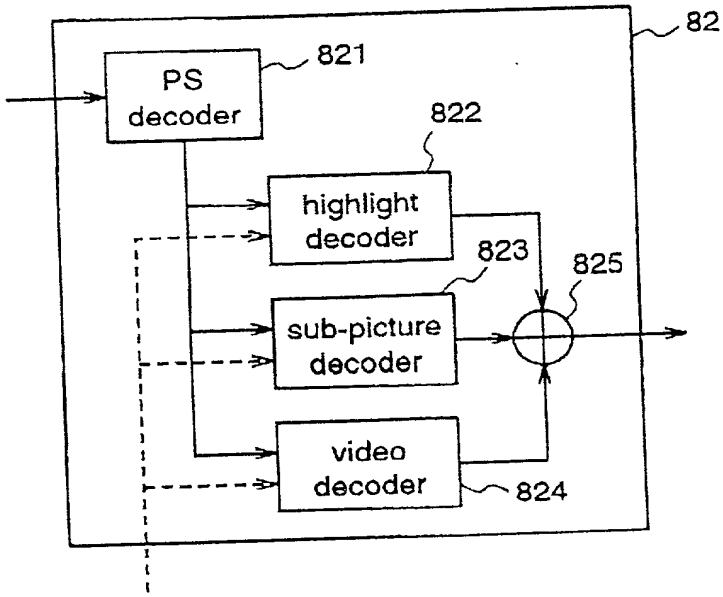

82
821
PS decoder
822
highlight decoder
823
825
sub-picture decoder
video decoder
824

Fig.10

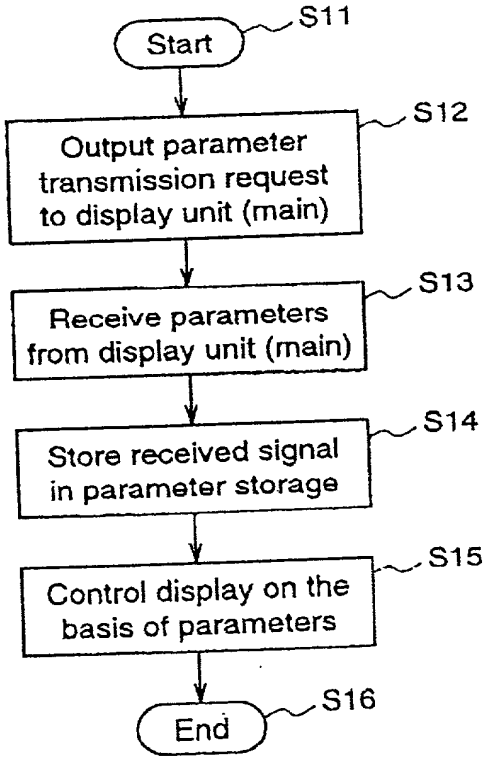

S11
Start
S12
Output parameter transmission request to display unit (main)
S13
Receive parameters from display unit (main)
S14
Store received signal in parameter storage
S15
Control display on the basis of parameters
S16
End

Fig.11

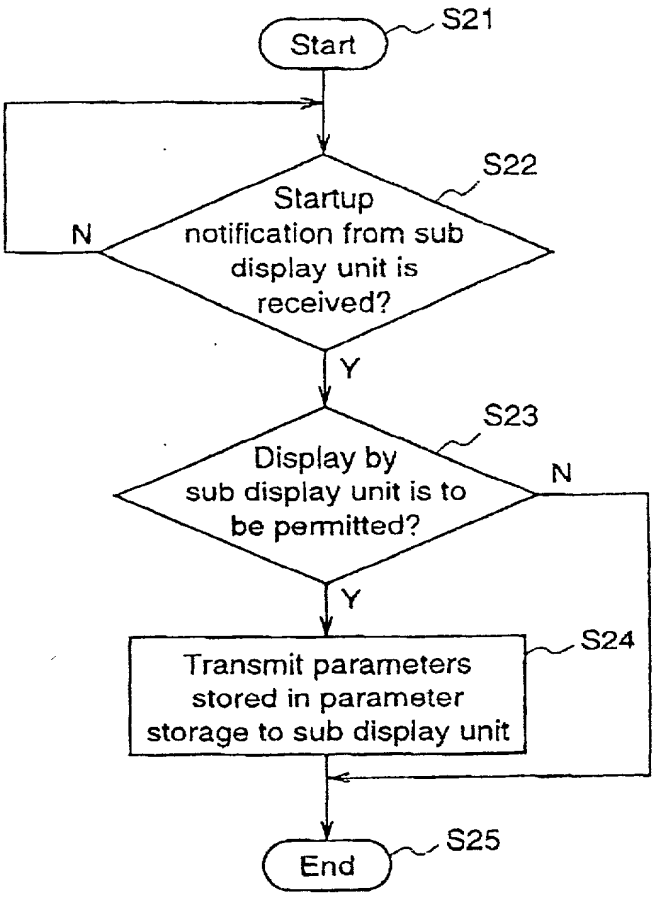

Start
S21
S22
Startup notification from sub display unit is received?
N
Y
S23
Display by sub display unit is to be permitted?
N
Y
S24
Transmit parameters stored in parameter storage to sub display unit
End
S25

Fig.12

value of disc type
value of screen size (length)
value of screen size (width)
menu button number being selected
sub-picture on/off flag
display aspect ratio
GUI icon on/off flag
title number being played
⋮

Fig.13

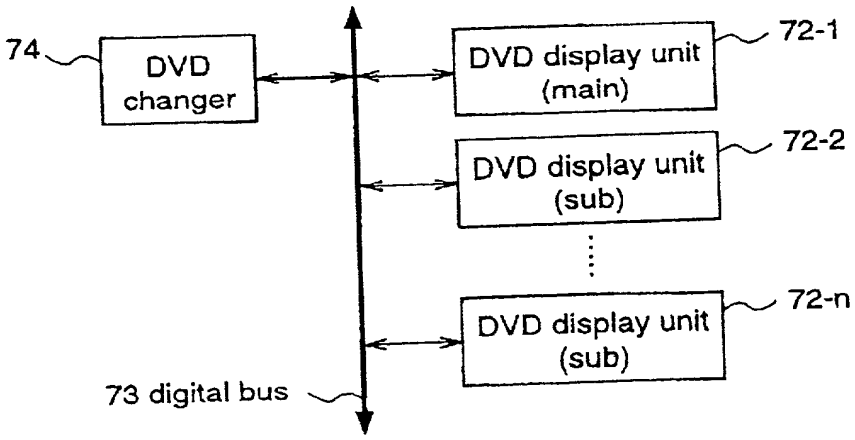


Fig.14

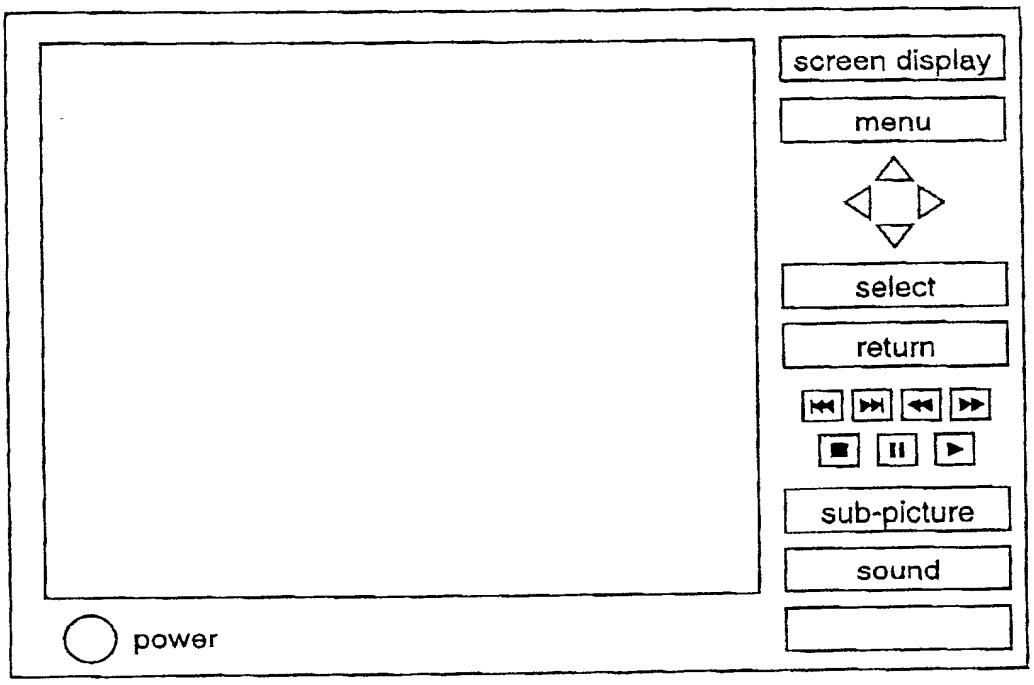


Fig.15

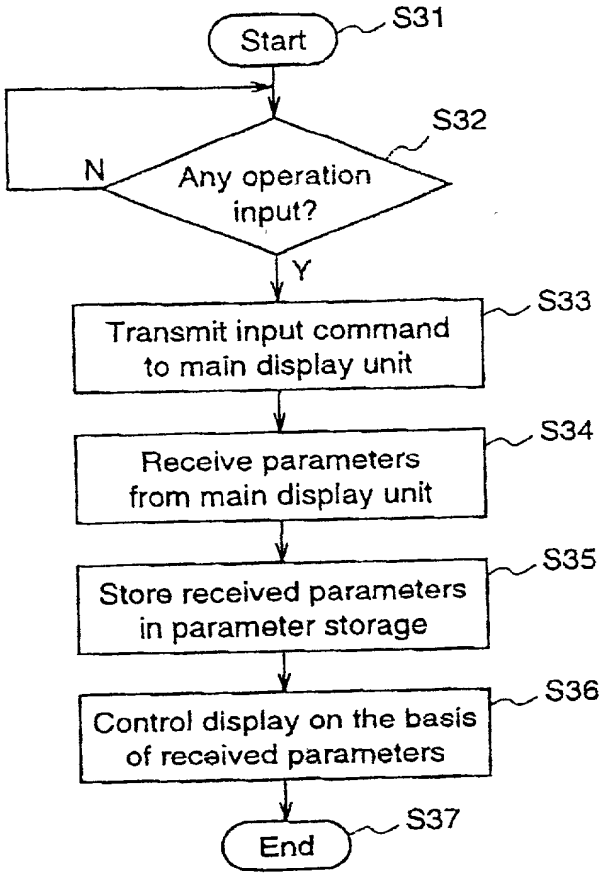

Start
S31
S32
Any operation input?
N
Y
Transmit input command to main display unit
S33
Receive parameters from main display unit
S34
Store received parameters in parameter storage
S35
Control display on the basis of received parameters
S36
End
S37

Fig.16

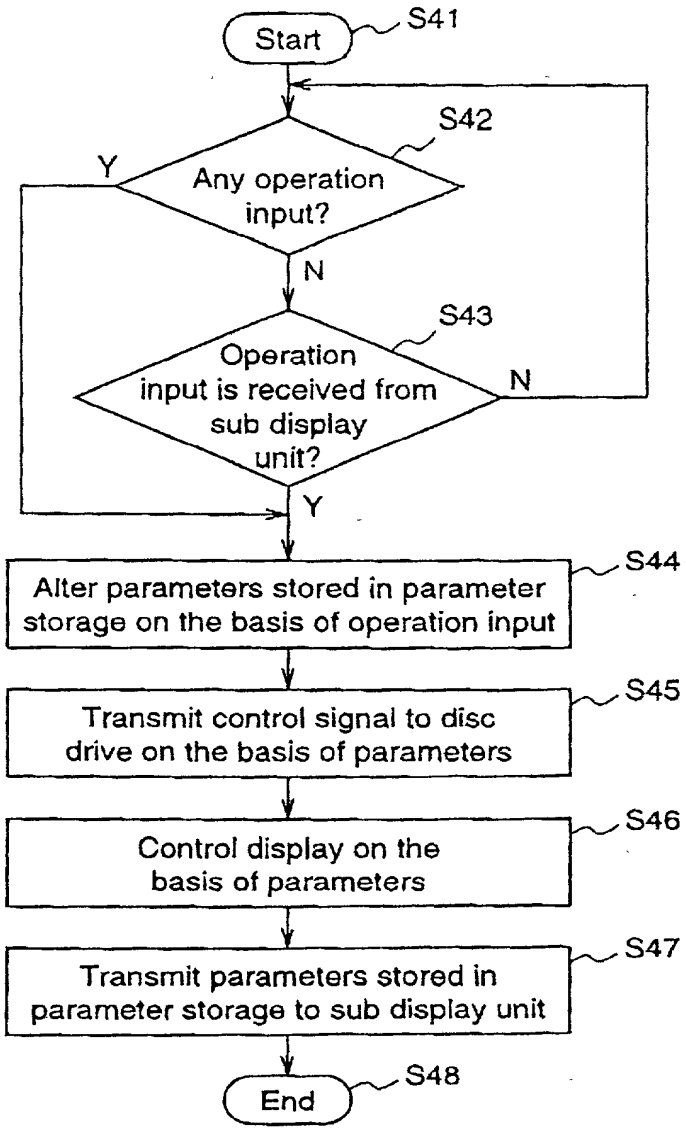

Start
S41
S42
Any operation input?
Y
N
S43
Operation input is received from sub display unit?
N
Y
Alter parameters stored in parameter storage on the basis of operation input
S44
Transmit control signal to disc drive on the basis of parameters
S45
Control display on the basis of parameters
S46
Transmit parameters stored in parameter storage to sub display unit
S47
End
S48

Fig.17

parameter item ID 1	parameter value 1
parameter item ID 2	parameter value 2
⋮	⋮

Example:	10	1
	20	3

"GUI icon display/non-display" = 10
display = 1
"title number being played" = 20
title number currently being played = 3

Fig.18

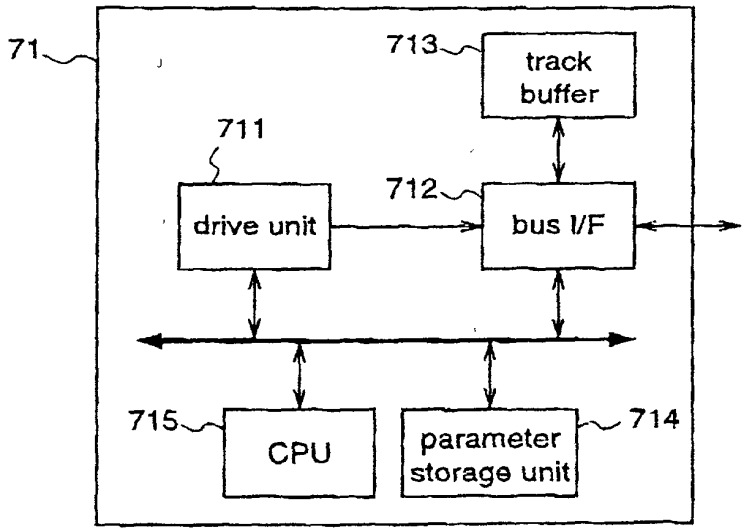


Fig.19

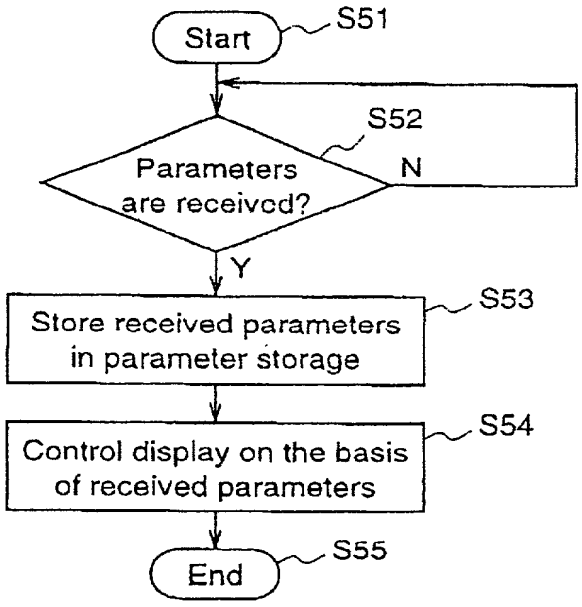

Start
S51
S52
Parameters are received?
N
Y
Store received parameters in parameter storage
S53
Control display on the basis of received parameters
S54
End
S55

Fig.20

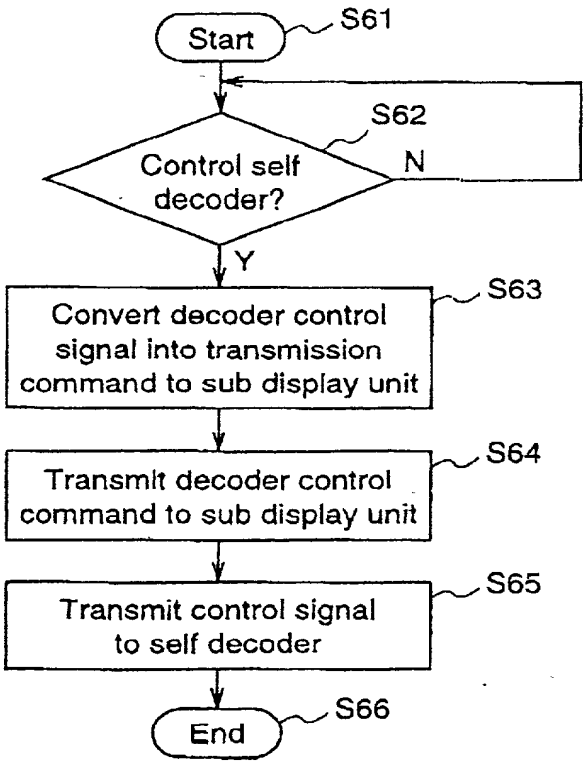
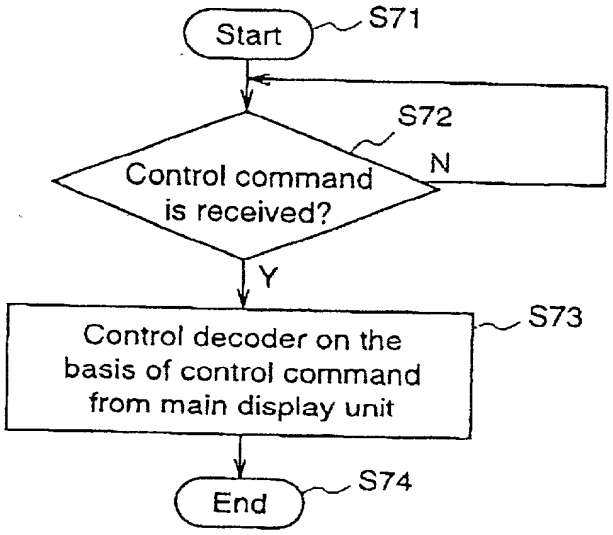

Start
S61
S62
Control self decoder?
N
Y
Convert decoder control signal into transmission command to sub display unit
S63
Transmit decoder control command to sub display unit
S64
Transmit control signal to self decoder
S65
End
S66

Fig.21


Start
S71
S72
Control command is received?
N
Y
Control decoder on the basis of control command from main display unit
S73
End
S74